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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/053,511	01/16/2002	Roy D. Kornbluh	SR11P035/US-4237-2	1563
22434	7590	10/09/2003	EXAMINER	
BEYER WEAVER & THOMAS LLP			BUDD, MARK OSBORNE	
P.O. BOX 778				
BERKELEY, CA 94704-0778			ART UNIT	PAPER NUMBER

2834

DATE MAILED: 10/09/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/053,511

Applicant(s)

KORNBLUH ET AL.

Examiner

Mark Budd

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-95 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-95 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5-6-02.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1-3, 5-7, 10-12, 14, 23-27, 42-45, 47, 51, 52, 54-58, 60, 61, 63, 67-70, 72, 83, 85-88 and 93-95 are rejected under 35 U.S.C. 102(a) as being anticipated by Pottenger, Hubbard or Lec.

Each reference uses an electro-active polymer with appropriate electrodes used in a system with atypical servo feedback loop that either damps the system or changes a desired parameter (e.g. stiffness).

Claims 16, 17, 21, 28, 29, 31-33, 35-37, 41, 64, 74-76 and 78-81 are rejected under 35 U.S.C. 102(a) as being anticipated by Pottenger.

Pottenger teaches an electroactive polymer servo control system wherein the excess energy can optionally be dissipated in a resistor.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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Claims 4, 8, 9, 13, 15, 18-20, 22, 30, 34, 38-40, 46, 48-50, 53, 59, 62, 65, 66, 71, 73, 77, 82 and 84 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pottenger, Hubbard or Lee.

As noted above each reference uses an electro-active polymer in a system to control the stiffness of, and/or provide driving and damping of a device. They do not explicitly teach some of the system details such as drive voltage levels buffer capacitors, plural active areas on a single electro-active element and particular resistor valves. However, it has long been held that optimization of a known device for a particular specific application is within the skill expected of the routineer. Likewise duplication of parts and/or making parts integral or separable are manipulations with the skill expected of the routineer. Thus to provide plural active areas on a single election active element (rather than plural separate elements) and providing optimum circuit values would have been obvious to one of ordinary skill in the art.

Claims 89-92 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pottenger, Hubbard or Lec in view of Lazarus or Spangler.

Pottenger, Lee and Hubbard teach using one electro-active polymer transducer in a drive/damp servo system to control a desired device. They do not explicitly apply their systems to footwear. However, Lazarus and spangler both teach it is well known to use an electro-active transducer to control parameters of footwear. It would have been obvious to use the specific polymer material of Lec, Hubbard or Pottenger in Lazarus or Spangler since selection from among known suitable materials has long been held to be within the skill expected of the

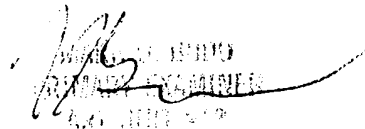
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routinccr. Conversely, it would have been obvious to use the electro-active polymer drive, damping system to any particular device known to benefit from a drive/damp application; including footwear (as taught by Spangler or Lazarus).

Further cited to show electro-active drive/control systems are Dujari, Forward, Iwao, Nye, Vandergrift, Crawly and Mendenhall.

Budd/ds

09/25/03

A handwritten signature, possibly "Budd", is written over a rectangular stamp. The stamp contains the text "RECEIVED" and "EXAMINED" in a grid-like format, with some additional text that is partially obscured by the signature.